

**REMARKS**

Claims in the Application. Claims 26-35 have been cancelled from this application. Claims 37-46 have been added to this application. Accordingly, Claims 1-25 and 36-46 are active in this application.

Examiner's Rejection Under 35 U.S.C. § 103(a). The Examiner has rejected Claims 1-25, 30 and 36 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,502,082 ("*Unger*"), U.S. Patent No. 5,965,651 ("*Ishii*"), U.S. Patent No. 6,908,886 ("*Jones*") and U.S. Patent No. 5,077,336 ("*Nakashita*"). This ground for rejection is traversed.

*Unger* discloses a crosslinked porous absorbent body which is derived from a hydrogel polymer wherein the crosslinked porous absorbent body is a 3-dimensional open-celled lattice structure (col. 3, ll. 29-40).

The porous body of *Unger* may be prepared by two methods. In the first, as set forth in the bridging paragraph of columns 5 and 6, a "gelling agent" is added to a polymer solution or "pregel". The addition of the gelling agent causes the pregel to set or coagulate. Note that the gelling agent "is *reactive* with the polymer to set or coagulate the pregel" (col. 6, ll. 29-30) (emphasis added). Thus, the "gelling agent" functions as a crosslinking agent. In any event, the pregel is *not* absorbent. Rather, it is the reaction product of pregel and crosslinking agent that is absorbent. Thus, the cited passage does not disclose a thermal insulating composition containing a superabsorbent polymer and a viscosifying agent.

In an alternative process, the pregel may be dropped into a gelling solvent. The gelling solvent is then replaced by a crosslinking solvent (col. 6, l. 64 through col. 7, l. 34).

Note that it is the crosslinked body of *Unger* which is absorbent. The porous body becomes an absorbent after the crosslinked composition is dried or after the solvent of gelling agent has been removed. The hydroxyl group-containing polymers referenced in col. 5, ll. 17-50 of *Unger* are not superabsorbents.

Since *Unger* fails to disclose a composition containing a water-superabsorbent polymer in combination with a viscosifying agent, the rejection of the claims over *Unger* is traversed.

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*Jones* is not prior art to Applicants' invention. The instant application claims the benefit of U.S. patent application serial no. 60/410,171, filed on September 12, 2002. *Jones* matured from an application filed on January 9, 2003.

*Ishii*, like *Unger*, discloses a method of making an absorbent material. In *Ishii*, a molded product of a liquid-absorbing material is prepared containing a polymer, a crosslinking agent and an optional hydrophillic polymer having no functional group capable of crosslinking. Note that it is the final product which exhibits high absorbency and not the components of the composition. Note, for instance, col. 2, ll. 26-49:

A simple composition comprising a crosslinking agent (component A), an N-vinylcarboxamide copolymer (component B) having a functional group of which reacts with the crosslinking agent, water (component C), a water-soluble organic solvent (component D) and a plasticizer (component E) as essential components . . . *crosslinking the composition* after or during molding can easily give rise to a molded product (gel) of liquid-absorbing material in the shape of a sheet or the like having excellent shape-retaining properties, that the molded product thus obtained has an excellent liquid absorbency and can absorb not only water but also ion-containing aqueous solutions . . . (Emphasis added).

Component (F) is an optional component that may be used in combination with Components (A) through (E).

Note further that the claims of *Ishii* are directed to a "composition for preparing a liquid-absorbing material." The Examples of *Ishii*, as well, recite a methodology "to obtain a liquid-absorbing material". (Examples 1-7.)

It is the resultant product of *Ishii* which is disclosed as being absorbent. None of the components (or reactants) of *Ishii* are absorbent. Thus, *Ishii* does not disclose the claimed thermal insulating composition containing a superabsorbent material, a viscosifying agent and water and/or brine.

*Nakashita* discloses a composition containing (i) polyvinyl chloride, (ii) plasticizer, (iii) water-containing absorbing gel of a water absorbing high polymer or an aqueous solution of a water-soluble polymer and (iv) an emulsifier (col. 2, ll. 10-36). Note that the "water-soluble polymers" of column 2 of *Nakashita* are used as an alternative to the "water-absorbing high polymer".

*Nakashita* does not disclose the claimed composition of Applicants. None of the water-superabsorbent polymers disclosed by Applicants are disclosed in *Nakashita*. The

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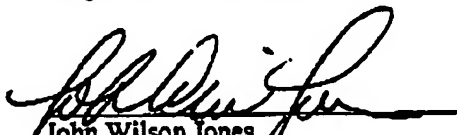
water-containing absorbing gel of *Nakashita* is characterized as a "water absorbing high polymer" (col. 2, ll. 10-11) which belongs to the same chemical category as Applicants' viscosifying polymers. Further, col. 3, ll. 25-39 of *Nakashita* refers to an alternative composition wherein the composition contains "polyvinyl chloride gelled by mixing with a plasticizer and a surface-covered, water-containing hydrogel" (col. 3, ll. 11-13). This embodiment is not directed to a water-superabsorbent polymer in combination with a viscosifying polymer.

The combination of viscosifying polymer and water-superabsorbent polymer of Applicants markedly reduce effective thermal conductivity and convection, and therefore improve thermal insulation (evidenced in Table II & Figure 2). Such combination is not disclosed in *Nakashita*.

Conclusions. Applicants request the Examiner to telephone the undersigned should she deem it prudent to expedite the prosecution of this application.

Respectfully submitted,

Dated: April 27, 2006

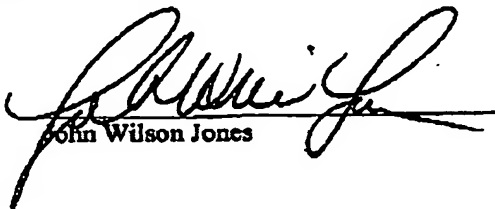
  
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